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NEWTON'S TELECOM DICTIONARY

**The Official Dictionary
of Telecommunications
Networking and
the Internet**

**16th
EXPANDED
& UPDATED
EDITION**

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managers use their own routines to load high, though they can sometimes borrow DOS commands.

Loading Plan A telephone company term. A Loading Plan is a systematic scheme for fully utilizing all existing capacity in a given switching entity; Utilizing and coordinating the capabilities and capacity limitations of various entities in a multi-entity wire center and maintaining objective service levels at all times. A Loading Plan is the basis for achieving and retaining good Load Balance.

LOC An ATM term. Loss of Cell Delineation: A condition at the receiver or a maintenance signal transmitted in the PHY overhead indicating that the receiving equipment has lost cell delineation. Used to monitor the performance of the PHY layer.

Local Pertaining to a system or device that resides within a subject device's switching domain.

Local Access The connection between a customer's premises and a point of presence of the Exchange Carrier.

Local Access and Transport Area LATA. The MFJ (Modified Final Judgement), which broke up the Bell System, also defined 196 distinct geographical areas known as LATAs. The LATA boundaries generally were drawn in consideration of SMSAs (Standard Metropolitan Statistical Areas), which were defined by the Census Bureau to identify "communities of interest" in economic terms. Generally speaking, the LATA boundaries also were coterminous with state lines and existing area code boundaries, and generally included the territory served by only a single RBOC. The basic purpose of the LATA concept was to delineate the serving areas reserved for LEC (Local Exchange Carrier) activity. In other words, IntraLATA traffic (i.e., local and local long distance) became the sole right and responsibility of the LECs. InterLATA traffic, on the other hand, became the sole right and responsibility of the IXCs. Over time, a number of state PUCs allowed the IXCs to compete for IntraLATA long distance; they also allowed CAPs (Competitive Access Providers) to provide limited local service in competition with the LECs. The Telecommunications Act of 1996 (The Act) opened the floodgates for competition with the LATA boundaries. The Act also allows the RBOCs to provide InterLATA service outside the states in which they provide local service. Additionally, The Act contains provisions for the RBOCs to offer InterLATA service within the state in which they provide local service, once they have satisfied a 14-point checklist, the most significant conditions of which relate to significant, demonstrated levels of competition within their respective local exchange serving areas. California is divided into 10 LATAs. Sparsely populated states such as South Dakota comprise only a single LATA.

Local Airtime Detail This cellular telephone carrier option (which means it costs money) provides a line-itemized, detailed billing of all calls, including call attempts and incoming calls to the mobile. What you get for free is generally a non-detailed, total summary of all calls.

Local Area And Transport Area See LATA.

Local Area Data Transport LADT. A service of your local phone company which provides you, the user, with synchronous data communications.

Local Area Network LAN. A short distance data communications network (typically within a building or campus) used to link computers and peripheral devices (such as printers, CD-ROMs, modems) under some form of standard control. Older data communications networks used dumb terminals (devices with no computing power) to talk to distant computers. But the economics of computing changed with the invention of the personal computer which had "intelligence" and which was cheap.

LANs were invented as an afterthought — after PCs — and were originally designed to let cheap PCs share peripherals — like laser printers — which were too expensive to dedicate to individual PCs. And as time went on, what LANs were used for got broader and broader. Today, LANs have four main advantages: 1. Anyone on the LAN can use any of the peripheral devices connected to the LAN. 2. Anyone on the LAN can access databases and programs running on client servers (super powerful PCs) attached to the LAN; and 3. Anyone on the LAN can send messages to and work jointly with others on the LAN. 4. While a LAN does not use common carrier circuits, it may have gateways and/or bridges to public telecommunications networks. See LAN Manager, Token Ring and Ethernet.

Local Area Signaling Services LASS is a group of central office features provided now by virtually all central office switch makers that uses existing customer lines to provide some extra features to the end user (typically a business user). They are based on delivery of calling party number via the local signaling network. LASS can be implemented on a standalone single central office basis for intra office calls or on a multiple central office grouping in a LATA (what the local phone companies are allowed to serve) for interoffice calls. Local CCS7 (Common Channel Signaling Seven) is required for all configurations. The following features typically make up LASS:

Automatic Callback: Lets the customer automatically call the last incoming call directory number associated with the customer's phone when both phones become idle. This feature gives the customer the ability to camp-on to a line.

Automatic Recall: Lets the customer automatically call the last outgoing call currently associated with the customer's station when both stations become idle. This feature gives the customer the ability to camp-on to a line.

Customer-Originated Trace: Lets the terminating party request an automatic trace of the last call received. The trace includes the calling line directory number and time and date of the call. This information is transmitted via an AM IOP channel to a designated agency, such as the telephone company or law enforcement agency.

Individual Calling Line Identification: Consists of two distinct features:

1. **Calling Number Delivery** which transmits data on an incoming call to the terminating phone. 1. **Directory Number Privacy** which prevents delivery of the directory number to the terminating phone.

Also, LASS has some selective features:

Selective Call Acceptance: Allows users to restrict which incoming voice calls can terminate, based on the identity attribute of the calling party. Only calls from parties identified on a screening lists are allowed to terminate. Calls from parties not specified on a screening list are rerouted to an appropriate announcement or forwarded to an alternate directory number.

Selective Call Forwarding: Allows a customer to pre-select which calls are forwarded based on the identity attribute of the calling party.

Selective Call Rejection: Allows a customer to reject incoming voice calls from identity attributes which are on the customer's rejection list. Call attempts from parties specified on the rejection list are prevented from terminating to the customer and are routed to an announcement which informs the caller that his/her call is not presently being accepted by the called party. **Selective Distinctive Alert:** Allows a customer to pre-select which voice calls are to be provided distinctive alerting treatment based on the identify attributes of the calling party.

Users can, at their convenience, activate or modify any of

Voice Recognition The ability of a machine to recognize your particular voice. This contrasts with speech recognition, which is different. Speech recognition is the ability of a machine to understand human speech — yours and most everyone else's. Voice recognition needs training. Speech recognition doesn't. See Speaker Dependent and Speaker Independent Voice Recognition.

Voice Response Unit VRU. Think of a Voice Response Unit (also called Interactive Voice Response Unit) as a voice computer. Where a computer has a keyboard for entering information, an IVR uses remote touchtone telephones. Where a computer has a screen for showing the results, an IVR uses a digitized synthesized voice to "read" the screen to the distant caller. An IVR can do whatever a computer can, from looking up train timetables to moving calls around an automatic call distributor (ACD). The only limitation on an IVR is that you can't present as many alternatives on a phone as you can on a screen. The caller's brain simply won't remember more than a few. With IVR, you have to present the menus in smaller chunks. See IVR and Voice Board.

Voice Ring Multiple Digital Intertie Buses connected in series to all nodes. Provides extra channels for voice data transmission when direct link (DI) channels are busy.

Voice Server A PC sitting on a LAN (Local Area Network) and containing voice files which are accessible by the PCs on the LAN. Such voice files may be transmitted on the LAN or over phone lines under the control of the PCs on the LAN. A voice server might contain voice mail. It might contain voice annotated electronic mail. Its primary function is to store voice in such a way that it's accessible easily. Voice servers are typically faster, have more disk capacity and more backup provisions than normal PCs. According to a letter I received in early May, 1993 from the lawyers for a company called Digital Sound Corporation, that company owns federal trademark registration number 1,324,258 for the mark Voicesserver, spelled as one word, not two.

Voice Store And Forward Voice mail. A PBX service that allows voice messages to be stored digitally in secondary storage and retrieved remotely by dialing access and identification codes. See Voice Mail System.

Voice Switched A device which responds to voice. When the device hears a voice, it turns on and transmits it, muting the receive side. The most common voice-switched device is the desk speakerphone. With voice switching, it's easy to hog a circuit. Just keep making a noise. Watch out for voice hogging. If you're calling someone and waiting for them by listening in on your speakerphone, mute your speakerphone. This way you'll hear them when they answer.

Voice Switching Equipment used in voice and video conferences. The equipment is activated by sounds of sufficient amplitude; hopefully speech, but also loud noises. Fast switching activates microphones so that only one conference participant can speak at a time. See also Voice Activated Video.

Voice Terminal A pretentious AT&T term for a Telephone.

Voice Verification The process of verifying one's claimed identity through analyzing voice patterns.

Voiceband A transmission service with a bandwidth considered suitable for transmission of audio signals. The frequency range generally is 300 or 500 hertz to 3,000 or 3,400 hertz — the frequency range the common analog home phone service is made at.

VoFR Voice over Frame Relay.

Voiceprint A voice recognition term. A voiceprint is a speech template used to recognize and verify callers. For

example, Home shopping Network, voice systems

When a system is operating, the user's speech is compared to the stored voice prints. If they match, the system recognizes the word and executes the command.

VoIP Voice over Internet Protocol. The technology used to transmit voice conversations over a data network using the Internet Protocol. Such data network may be the Internet or a corporate Intranet. For a much longer explanation, see Voice over IP and VoIP Forum.

VoIP Forum Voice over Internet Protocol. The Voice over IP Forum was formed in 1996 by Cisco Systems, VocalTec, Dialogic, 3Com, Netspeak and others as a working group of the International Multimedia Teleconferencing Consortium (IMTC), which promotes the implementation of the ITU-T H.323 standard. The VoIP Forum is focused on extending the ITU-T standards to provide implementation recommendations as a means of supporting Voice over IP in order that devices of disparate manufacture can support voice communications over packet networks such as the Internet. By way of example, the VoIP Forum intends to establish directory services standards in order that Internet voice users can find each other. They also plan to port touch-tone signals to the Internet to allow the use of ACDs and voice mail systems. See also VON Coalition.

VolanoMark VolanoMark is a popular Java benchmark for measuring server throughput... it measures messages per second.

Volatile Storage Computer storage that is erased when power is turned off. RAM is volatile storage.

Volser An MCI term used to denote a volume of calls. Based on the words "Volume Serial." The term "Volser" can be applied to the manual collection of calls from a switch on a switch tape or through call data transmitted via NEMAS.

Volt The unit of measurement of electromotive force. Voltage is always expressed as the potential difference in available energy between two points. One volt is the force required to produce a current of one ampere through a resistance or impedance of one ohm.

Volt Meter An instrument for measuring voltages, resistance and current.

Voltage Electricity is a essentially a flow of electrons. They're pushed into a gadget — toaster, computer, phone — on one wire and they sucked out on the other wire. For this movement of electrons to occur there must be "pressure," just as there must be pressure in the flow of water. The pressure under which a flow of electrons moves through a gadget is called the electric voltage. Voltage doesn't indicate anything about quantity, just the pressure. The amount of electricity moving through a wire is called its current and is measured in amps. You figure the power in an electron flow (i.e. in electricity) by multiplying the flow's current by the voltage under which it flows.

Voltage Drop The voltage differential across a component or conductor due to current flow through the resistance or impedance of the component or conductor.

Voltage Rating The highest voltage that may be continuously applied to a conductor in conformance with standards or specifications.

Voltage Regulator A circuit used for controlling and maintaining a voltage at a constant level.

Voltage Spike An extremely high voltage increase on an electrical circuit that lasts only a fraction of a second, but can damage sensitive electronic equipment like telephone systems or can cause it to act "funny." If your phone system starts

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